

## **PHYSICAL AGENT MODALITIES**

### **POSITION PAPER**

The American Occupational Therapy Association, Inc. (AOTA) asserts that "physical agent modalities may be used by occupational therapy practitioners when used as an adjunct to or in preparation for purposeful activity to enhance occupational performance and when applied by a practitioner who has documented evidence of possessing the theoretical background and technical skills for safe and competent integration of the modality into an occupational therapy intervention plan" (AOTA, 1991a, p. 1075). The purpose of this paper is to clarify the parameters for the appropriate use of physical agent modalities in occupational therapy. Physical agent modalities are defined as those modalities that produce a response in soft tissue through the use of light, water, temperature, sound, or electricity. Physical agent modalities include, but are not limited to paraffin baths, hot packs, cold packs, Fluidotherapy, contrast baths, ultrasound, whirlpool, and electrical stimulation units (e.g., functional electrical stimulation [FES]/neuromuscular electrical stimulation [NMES] devices, transcutaneous electrical nerve stimulator [TENS]) (AOTA, 1991b).

Physical agent modalities can be categorized as "adjunctive methods" (Pedretti, 1996, pp. 8-9; see also Pedretti & Pasquinelli, 1990). An adjunctive method is one that is used in conjunction with or in preparation for patient involvement in purposeful activity. Adjunctive methods support and promote the acquisition of the performance components necessary to enable an individual to resume or assume the skills that are a part of his or her daily routine. As such, the exclusive use of physical agent modalities as a treatment method during a treatment session without application to a functional outcome is not considered occupational therapy. Physical agent modalities can be appropriately integrated into an occupational therapy program only when they are used to prepare the patient for better performance and prevention of disability through self-participation in work, self-care, and play and leisure activities (AOTA, 1979).

The safe selection, application, and adjustment of physical agent modalities, however, is not considered entry-level practice. The specialized learning necessary for proper use of these modalities typically requires appropriate postprofessional education, such as continuing education, in-service training, or graduate education. Documentation of the theoretical and technical education necessary for safe and appropriate use of any physical agent modalities should include, but not be limited to: course(s) in human anatomy; principles of chemistry and physics related to specific properties of light, water, temperature, sound, or electricity, as indicated by the selected modality; physiological, neurophysiological, and electrophysiological changes that occur as a result of the application of the selected modality; the response of normal and abnormal tissue to the application of the modality; indications and contraindications related to the selection and application of the modality; guidelines for treatment and administration of the modality; guidelines for preparation of the patient, including education about the process and

Physical Agent Modalities Position Paper  
American Occupational Therapy Association

possible outcomes of treatment (i.e., risks and benefits); and safety rules and precautions related to the selected modality. Education should also include methods for documenting the effectiveness of immediate and long-term effects of treatment and characteristics of the equipment, including safe operation, adjustment, indications of malfunction, and care. Supervised use of the physical agent modality should continue until service competency and professional judgment in selection, modification, and integration into an occupational therapy program are assured (AOTA, 1991b). As with all media, when a registered occupational therapist delegates the use of a physical agent modality to a certified occupational therapy assistant, both shall comply with appropriate supervision requirements and ensure that their use is based on service competency (AOTA, 1991c).

The Occupational Therapy Code of Ethics (AOTA, 1994) supports safe and competent practice in the profession and provides principles that can be applied to physical agent modality use. Principle 3 (Competence) states that "occupational therapy personnel shall achieve and continually maintain high standards of competence" (p. 1037) and places expectations on practitioners to demonstrate competency by meeting competency-based standards. Principle 3C states that "occupational therapy personnel shall take responsibility for maintaining competence by participating in professional development and educational activities" (p. 1037), which obliges practitioners to maintain competency by involvement in continuing education. In particular, therapists who choose to use physical agent modalities must stay abreast of current research findings regarding the efficacy of physical agent modality use. In addition, Principle 4A states that "occupational therapy personnel shall understand and abide by applicable Association policies; local, state, and federal laws; and institutional rules" (p. 1038), and requires practitioners to comply with all rules, regulations, and laws. All state laws and regulations related to physical agent modality use have precedence over AOTA policies and positions.

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Physical Agent Modalities Position Paper  
American Occupational Therapy Association

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Physical Agent Modalities Position Paper  
American Occupational Therapy Association

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